

small hole 25 which is centered on a radius extending from the center of lens 20 and is centered in the rim segment 24. A slit 26 extends from the aperture 25 about to the surface 24a of the rim segment 24.

FIGURE 4

As shown in FIG. 4 lens 20 is plano-convex and has an anterior surface 20a which lies in the same plane as the anterior surface of the limbs 21 and 22 and the anterior surface of the rim segments 23 and 24.

FIGURE 5

In FIG. 5 the lens 20 is shown in position in the posterior chamber. The diameter of the circular rim surfaces 23a and 24a is the same diameter as the diameter of the capsular bag and cannot therefore decenter. The inferior arms are fitted into the interior of the capsular bag for fixation. The vectors of weight of the lens make it want to remain centered. The inferior curve surface 23a of the lens may be manipulated to glide easily into the bag without a tendency to penetrate the posterior capsule. Thus the lens of FIGS. 3 and 4 will fixate and center in most cases without any additional fixation.

An additional unique provision is present in the lens of FIGS. 3 and 4 enhancing the ability to fixate the upper limb of the lens to the iris. This is achieved by providing a radial slit 26 extending from surface 24a into the aperture 25. In utilizing the same, an iridectomy is made over the rim segment 24. A piece of the iris is pressed through the slit 26. This may be achieved utilizing a small caliber blunt instrument. Thus the iris is grasped by the lens in a clipping or clawlike action. This further prevents the lens from dislocating should capsular fixation not occur by reason of the contact to the inferior supporting surface 23a. In addition, fixation at slit 26 utilizes the pendulum effect further to enhance fixation.

In FIG. 5 the jagged margins 30, 31 and 32 represent the opening made into the capsule for fragmentation and removal of the lens. The opening is adequate to receive the inferior rim segment 23 and to accommodate the insertion of the ends of the rim segment 24. The inner surface of the posterior capsule 33 may be viewed through the opening. The surface of the anterior capsule 34 only in part remains intact.

Typically the posterior chamber lens of FIGS. 3-5 would have the lens portion 20 of 4 to 6 millimeters in diameter with the rim segment 24 of about the same chord length and with rim 23 about twice such chord length and with the diameter of the outer surfaces 23a and 24a from the center of the lens 20 being of the order of 11.5 millimeters.

It will be understood that FIGS. 1 and 3 have been illustrated with the lenses oriented as would be viewed by the physician during an implant procedure. FIG. 5 on the other hand is a view of the lens area with the iris removed in order to permit the interior limbs to be shown as they are positioned within the capsular bag. In FIG. 5 the lens is in the position as to be viewed by an observer facing the patient with the implant.

The lens, limbs and rims may all be made of rigid material suitable for eye implant. Such material may be of the nature of polymethylmethacrylate (PMMA). In accordance with the principles described in Applicant's co-pending application Ser. No. 28,609, filed Apr. 9, 1979, the unit used for anterior chamber implantation may be made up of different materials for facilitating the accommodation of a lens through muscular action in the

eye. For example, the lens itself and the rims may be of rigid material, such as polymethylmethacrylate (PMMA), while the limbs may be of a softer material of the nature of hydrogels (PHEMA).

Thus from the foregoing it will be seen that an intraocular implant lens is provided comprising a central circular lens with a narrow 12 o'clock limb and a narrow arcuate rim segment centered on the end of the 12 o'clock limb and extending about 15° along with a narrow six o'clock limb supporting a rim segment of about 30° arcuate extent. The arcuate segments have their center at the center of the lens and are of diameter of the chamber in which they are to be fixed.

I claim:

1. An intraocular implant unit for permanent installation and immobilization in a circularly bounded chamber in the eye of a patient comprising:

- (a) a lens;
- (b) a first limb and a second limb integral with and extending outward radially from opposite margins of said lens;
- (c) a long arcuate rim mounted at its center on the end of said first limb; and
- (d) a short arcuate rim defining an arcuate length of less extent than said long arcuate rim and being mounted at its center on the end of said second limb, wherein said rims conform to a circle having a diameter equal to the diameter of the circularly bounded chamber and wherein said rims have the same center of curvature.

2. The combination of claim 1 wherein said lens and said rims are substantially coplanar for capsular sac implantation.

3. The combination of claim 1 wherein the plane of said rims is posterior to said lens for anterior chamber implantation.

4. The combination of claim 1 wherein said rims and said limbs are substantially less in lateral dimension than the diameter of said lens for minimizing the weight of the implant unit.

5. The combination of claim 1 in which said lens is of the same material as said limbs and rims.

6. The combination of claim 1 where said lens and said rims are made of rigid material of the nature of polymethylmethacrylate (PMMA) and said limbs are of a softer material of the nature of hydrogels (PHEMA).

7. An intraocular implant unit comprising:

- (a) a lens;
- (b) a first limb and a second limb integral with and extending outward radially from opposite margins of said lens;
- (c) a long arcuate rim centered on the end of said first limb;
- (d) a short arcuate rim defining an arcuate length of less extent than said long arcuate rim and being centered on said second limb, wherein a radial slit extends toward said lens from the outer periphery of said short rim centered with reference to said second limb for clamping said short rim to tissue of a receptor.

8. The combination of claim 7 in which said slit terminates in a hole centered on said short rim and on said second limb.

9. An intraocular implant lens unit comprising:

- (a) a central lens;
- (b) a first limb and a second limb integral with and extending outward radially from opposite margins of said lens;